

| <b>Aeronautics Educator Guide</b>                           |              |                  |  |
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| <b>2006 Science</b>   |              |                  |  |
| <b>Content Standards</b>                                    |              |                  |  |
| <b>Idaho Science</b>  |              |                  |  |
| <b>Grade 2</b>  |              |                  |  |
| <b>Activity/Lesson</b>                                      | <b>State</b> | <b>Standards</b> |  |
| Air Engines (12-16)   | ID           | SCI.2.2.S.1.2.1  | Make observations, record and interpret data.  |
| Air Engines (12-16)   | ID           | SCI.2.2.S.1.3.1  | Measure in standard and non-standard units.  |
| Air Engines (12-16)   | ID           | SCI.2.2.S.1.6.2  | Make observations.   |
| Air Engines (12-16)   | ID           | SCI.2.2.S.1.6.1  | Identify questions to be investigated.   |
| Air Engines (12-16)   | ID           | SCI.2.2.S.1.6.4  | Communicate observations.  |
| Air Engines (12-16)   | ID           | SCI.2.2.S.2.2.1  | Explain how force affects the position and motion of objects.                            |
| Rotor Motor (69-75)   | ID           | SCI.2.2.S.1.2.1  | Make observations, record and interpret data.  |
| Where is North? The Compass Can Tell Us (87-90)             | ID           | SCI.2.2.S.1.2.1  | Make observations, record and interpret data.  |
| Where is North? The Compass Can Tell Us (87-90)             | ID           | SCI.2.2.S.1.6.1  | Identify questions to be investigated.   |
| We Can Fly, You and I: Interdisciplinary Learning (107-108) | ID           | SCI.2.2.S.1.2.1  | Make observations, record and interpret data.  |
| Dunked Napkin ( 17-22)                                      | ID           | SCI.2.2.S.1.2.1  | Make observations, record and interpret data.  |
| Dunked Napkin ( 17-22)                                      | ID           | SCI.2.2.S.1.6.1  | Identify questions to be investigated.   |
| Dunked Napkin ( 17-22)                                      | ID           | SCI.2.2.S.1.6.3  | Analyze information and evidence.  |
| Dunked Napkin ( 17-22)                                      | ID           | SCI.2.2.S.2.1.1  | List properties of an object.  |
| Dunked Napkin ( 17-22)                                      | ID           | SCI.2.2.S.5.2.1  | Identify tools people have invented for everyday life and for scientific investigations. |
| Paper Bag Mask (23-28)                                      | ID           | SCI.2.2.S.1.3.1  | Measure in standard and non-standard units.  |
| Paper Bag Mask (23-28)                                      | ID           | SCI.2.2.S.1.5.1  | Identify shape and use of objects.   |
| Paper Bag Mask (23-28)                                      | ID           | SCI.2.2.S.1.6.1  | Identify questions to be investigated.   |
| Paper Bag Mask (23-28)                                      | ID           | SCI.2.2.S.1.8.1  | Follow multi-step instructions.  |
| Wind in Your Socks) (29-35)                                 | ID           | SCI.2.2.S.1.2.1  | Make observations, record and interpret data.  |
| Wind in Your Socks) (29-35)                                 | ID           | SCI.2.2.S.1.3.1  | Measure in standard and non-standard units.  |
| Wind in Your Socks) (29-35)                                 | ID           | SCI.2.2.S.1.6.2  | Make observations.   |
| Wind in Your Socks) (29-35)                                 | ID           | SCI.2.2.S.1.6.1  | Identify questions to be investigated.   |
| Wind in Your Socks) (29-35)                                 | ID           | SCI.2.2.S.1.6.4  | Communicate observations.  |
| Wind in Your Socks) (29-35)                                 | ID           | SCI.2.2.S.4.1.1  | Describe the characteristics of different weather conditions.                            |

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| Right Flight (52-59)  | ID           | SCI.2.2.S.1.2.1  | Make observations, record and interpret data.                           |
| Delta Wing Glider (60-68)                                   | ID           | SCI.2.2.S.1.2.1  | Make observations, record and interpret data.                           |
| <b>Aeronautics Educator Guide</b>                           |              |                  |   |
| <b>2006 Science</b>   |              |                  |   |
| <b>Content Standards</b>                                    |              |                  |   |
| <b>Idaho Science</b>  |              |                  |   |
| <b>Grade 3</b>  |              |                  |   |
| <b>Activity/Lesson</b>                                      | <b>State</b> | <b>Standards</b> |   |
| Air Engines (12-16)   | ID           | SCI.3.3.S.1.2.1  | Make observations, collect data and evaluate it.                        |
| Air Engines (12-16)   | ID           | SCI.3.3.S.1.3.1  | Measure changes that occur.   |
| Air Engines (12-16)   | ID           | SCI.3.3.S.1.6.1  | Identify questions that can be answered by conducting scientific tests. |
| Air Engines (12-16)   | ID           | SCI.3.3.S.2.1.1  | Use instruments to measure properties.                                  |
| Rotor Motor (69-75)   | ID           | SCI.3.3.S.1.6.1  | Identify questions that can be answered by conducting scientific tests. |
| Making Time Fly (80-86)                                     | ID           | SCI.3.3.S.1.6.7  | Communicate the results of tests to others.                             |
| Where is North? The Compass Can Tell Us (87-90)             | ID           | SCI.3.3.S.1.6.1  | Identify questions that can be answered by conducting scientific tests. |
| Let's Build a Table Top Airport (91-96)                     | ID           | SCI.3.3.S.1.2.2  | Replicate and/or use models.  |
| We Can Fly, You and I: Interdisciplinary Learning (107-108) | ID           | SCI.3.3.S.1.2.2  | Replicate and/or use models.  |
| Dunked Napkin ( 17-22)                                      | ID           | SCI.3.3.S.1.2.1  | Make observations, collect data and evaluate it.                        |
| Dunked Napkin ( 17-22)                                      | ID           | SCI.3.3.S.1.6.1  | Identify questions that can be answered by conducting scientific tests. |
| Dunked Napkin ( 17-22)                                      | ID           | SCI.3.3.S.1.6.4  | Use data to construct a reasonable explanation.                         |
| Dunked Napkin ( 17-22)                                      | ID           | SCI.3.3.S.1.6.5  | Make simple predictions based on data.                                  |
| Dunked Napkin ( 17-22)                                      | ID           | SCI.3.3.S.2.1.1  | Use instruments to measure properties.                                  |
| Paper Bag Mask (23-28)                                      | ID           | SCI.3.3.S.1.3.1  | Measure changes that occur.   |
| Paper Bag Mask (23-28)                                      | ID           | SCI.3.3.S.1.5.1  | Describe the relationship between shape and use.                        |
| Paper Bag Mask (23-28)                                      | ID           | SCI.3.3.S.1.6.1  | Identify questions that can be answered by conducting scientific tests. |
| Paper Bag Mask (23-28)                                      | ID           | SCI.3.3.S.1.6.5  | Make simple predictions based on data.                                  |
| Paper Bag Mask (23-28)                                      | ID           | SCI.3.3.S.2.1.2  | Identify the physical properties of solids, liquids, and gases.         |
| Paper Bag Mask (23-28)                                      | ID           | SCI.3.3.S.2.1.1  | Use instruments to measure properties.                                  |
| Wind in Your Socks) (29-35)                                 | ID           | SCI.3.3.S.1.2.1  | Make observations, collect data and evaluate it.                        |
| Wind in Your Socks) (29-35)                                 | ID           | SCI.3.3.S.1.3.1  | Measure changes that occur.   |

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| Wind in Your Socks) (29-35) | ID | SCI.3.3.S.1.6.1 | Identify questions that can be answered by conducting scientific tests.          |
| Wind in Your Socks) (29-35) | ID | SCI.3.3.S.1.6.3 | Use appropriate tools and techniques to gather and display data.                 |
| Wind in Your Socks) (29-35) | ID | SCI.3.3.S.1.6.4 | Use data to construct a reasonable explanation.                                  |
| Wind in Your Socks) (29-35) | ID | SCI.3.3.S.2.1.1 | Use instruments to measure properties.   |
| Bag Balloons (40-43)        | ID | SCI.3.3.S.1.6.1 | Identify questions that can be answered by conducting scientific tests.          |
| Bag Balloons (40-43)        | ID | SCI.3.3.S.2.1.3 | Explain that heating and cooling can cause changes of state in common materials. |
| Sled Kite (44-51)           | ID | SCI.3.3.S.1.6.1 | Identify questions that can be answered by conducting scientific tests.          |
| Sled Kite (44-51)           | ID | SCI.3.3.S.2.1.1 | Use instruments to measure properties.   |
| Right Flight (52-59)        | ID | SCI.3.3.S.1.2.2 | Replicate and/or use models.   |
| Right Flight (52-59)        | ID | SCI.3.3.S.1.6.5 | Make simple predictions based on data.   |
| Delta Wing Glider (60-68)   | ID | SCI.3.3.S.1.2.2 | Replicate and/or use models.   |
| Delta Wing Glider (60-68)   | ID | SCI.3.3.S.1.6.5 | Make simple predictions based on data.   |

#### **Aeronautics Educator Guide**

#### **2006 Science**

#### **Content Standards**

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|---|--------------|------------------|---|
| <b>Idaho Science</b>                                  |              |                  |   |
| <b>Grade 4</b>  |              |                  |   |
| <b>Activity/Lesson</b>                                | <b>State</b> | <b>Standards</b> |   |
| Air Engines (12-16)                                   | ID           | SCI.4.4.S.1.2.1  | Make and record observations then analyze and communicate the collected data. |
| Air Engines (12-16)                                   | ID           | SCI.4.4.S.1.2.2  | Define observations and inferences.   |
| Air Engines (12-16)                                   | ID           | SCI.4.4.S.1.3.1  | Describe how changes occur and can be measured.                               |
| Air Engines (12-16)                                   | ID           | SCI.4.4.S.1.6.1  | Write questions that can be answered by conducting scientific tests.          |
| Air Engines (12-16)                                   | ID           | SCI.4.4.S.2.1.1  | Use instruments to measure properties   |
| Rotor Motor (69-75)                                   | ID           | SCI.4.4.S.1.2.1  | Make and record observations then analyze and communicate the collected data. |
| Rotor Motor (69-75)                                   | ID           | SCI.4.4.S.1.6.1  | Write questions that can be answered by conducting scientific tests.          |
| Flight: Interdisciplinary Learning Activities (76-79) | ID           | SCI.4.4.S.1.2.1  | Make and record observations then analyze and communicate the collected data. |
| Making Time Fly (80-86)                               | ID           | SCI.4.4.S.1.2.1  | Make and record observations then analyze and communicate the collected data. |
| Making Time Fly (80-86)                               | ID           | SCI.4.4.S.1.6.7  | Communicate the results of tests to others in multiple formats.               |
| Where is North? The Compass Can Tell Us (87-90)       | ID           | SCI.4.4.S.1.2.2  | Define observations and inferences.   |
| Let's Build a Table Top Airport (91-96)               | ID           | SCI.4.4.S.1.2.3  | Make, describe and/or use models.   |

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| We Can Fly, You and I: Interdisciplinary Learning (107-108) | ID | SCI.4.4.S.1.2.1 | Make and record observations then analyze and communicate the collected data. |
| We Can Fly, You and I: Interdisciplinary Learning (107-108) | ID | SCI.4.4.S.1.2.3 | Make, describe and/or use models.   |
| Dunked Napkin ( 17-22)                                      | ID | SCI.4.4.S.1.2.1 | Make and record observations then analyze and communicate the collected data. |
| Dunked Napkin ( 17-22)                                      | ID | SCI.4.4.S.1.6.1 | Write questions that can be answered by conducting scientific tests.          |
| Dunked Napkin ( 17-22)                                      | ID | SCI.4.4.S.1.6.4 | Use data to construct a reasonable explanation.                               |
| Dunked Napkin ( 17-22)                                      | ID | SCI.4.4.S.1.6.5 | Make predictions based on data.   |
| Dunked Napkin ( 17-22)                                      | ID | SCI.4.4.S.2.1.2 | Describe the physical properties of solids, liquids, and gases.               |
| Dunked Napkin ( 17-22)                                      | ID | SCI.4.4.S.2.1.1 | Use instruments to measure properties   |
| Paper Bag Mask (23-28)                                      | ID | SCI.4.4.S.1.2.2 | Define observations and inferences.   |
| Paper Bag Mask (23-28)                                      | ID | SCI.4.4.S.1.3.1 | Describe how changes occur and can be measured.                               |
| Paper Bag Mask (23-28)                                      | ID | SCI.4.4.S.1.5.1 | Explain the relationship between shape and use.                               |
| Paper Bag Mask (23-28)                                      | ID | SCI.4.4.S.1.6.5 | Make predictions based on data.   |
| Paper Bag Mask (23-28)                                      | ID | SCI.4.4.S.2.1.2 | Describe the physical properties of solids, liquids, and gases.               |
| Paper Bag Mask (23-28)                                      | ID | SCI.4.4.S.2.1.1 | Use instruments to measure properties   |
| Wind in Your Socks) (29-35)                                 | ID | SCI.4.4.S.1.2.1 | Make and record observations then analyze and communicate the collected data. |
| Wind in Your Socks) (29-35)                                 | ID | SCI.4.4.S.1.2.2 | Define observations and inferences.   |
| Wind in Your Socks) (29-35)                                 | ID | SCI.4.4.S.1.3.1 | Describe how changes occur and can be measured.                               |
| Wind in Your Socks) (29-35)                                 | ID | SCI.4.4.S.1.6.1 | Write questions that can be answered by conducting scientific tests.          |
| Wind in Your Socks) (29-35)                                 | ID | SCI.4.4.S.1.6.3 | Use appropriate tools and techniques to gather and display data.              |
| Wind in Your Socks) (29-35)                                 | ID | SCI.4.4.S.1.6.4 | Use data to construct a reasonable explanation.                               |
| Wind in Your Socks) (29-35)                                 | ID | SCI.4.4.S.2.1.1 | Use instruments to measure properties   |
| Bag Balloons (40-43)  | ID | SCI.4.4.S.1.6.1 | Write questions that can be answered by conducting scientific tests.          |
| Bag Balloons (40-43)  | ID | SCI.4.4.S.2.1.3 | Explain the changes caused by heating and cooling materials.                  |
| Sled Kite (44-51)   | ID | SCI.4.4.S.1.6.1 | Write questions that can be answered by conducting scientific tests.          |
| Sled Kite (44-51)   | ID | SCI.4.4.S.2.1.1 | Use instruments to measure properties   |
| Right Flight (52-59)  | ID | SCI.4.4.S.1.2.2 | Define observations and inferences.   |
| Right Flight (52-59)  | ID | SCI.4.4.S.1.2.3 | Make, describe and/or use models.   |

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| Right Flight (52-59)      | ID | SCI.4.4.S.1.6.5 | Make predictions based on data.     |
| Delta Wing Glider (60-68) | ID | SCI.4.4.S.1.2.2 | Define observations and inferences. |
| Delta Wing Glider (60-68) | ID | SCI.4.4.S.1.2.3 | Make, describe and/or use models.   |
| Delta Wing Glider (60-68) | ID | SCI.4.4.S.1.6.5 | Make predictions based on data.     |